

## REMARKS/ARGUMENTS

### 1. Summary of the Office Action

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,405,256 (hereinafter Lin) in view of U.S. Patent No. 5,995,486 (hereinafter Iliadis).

### 2. Response to 35 U.S.C. § 103 Rejections

In response to the above Office Action, the Applicant has amended claim 1 and respectfully requests reconsideration thereof. The amendment is supported by the specification as originally filed, for example, page 13, lines 2-3 and lines 10-13. Hence, no new subject matter is introduced by the amendment of the claim.

The present claims are patentable over Lin in view of Iliadis as none of the cited references teaches or suggests the presently claimed feature of “temporarily increasing an effective serving rate, for a route configured to receive and transmit packets in a communications network at a time instant corresponding to an onset of congestion of the router, and thereby **increasing the number of packets that a source, which provides packets to the router, is allowed to transmit into the communications network**, wherein the effective serving rate is increased for a time period comprising a round-trip time interval for a packet transmitted in the network” (Claim 1; emphasis added).

Lin presents a method for a caching server to absorb network congestion in its downstream connection by utilizing an expandable buffer for storing additional segments of the streamed data and varying the transmission data rate in the downstream connection. However, Lin is silent on increasing the number of packets that a source is allowed to transmit into the communications network. At best, Lin only teaches two ways of managing traffic congestion which include “the first data rate from  $CS_M$  to the downstream  $CS_{M+1}$  is decreased to a second data rate” and “the expandable buffer in  $CS_M$  is increased” (Lin, Col. 8, lines 54-56). Indeed, Lin is more concerned with the cache server absorbing network congestion in its downstream

connection than upstream connection. Lin fails to mention that the source which provides packets to  $CS_M$  increases the number of packets transmitted. Therefore, Lin fails to anticipate the present claim.

Even the additional teachings of Iliadis fail to correct the deficiencies of Lin. Iliadis presents a hop-by-hop flow mechanism wherein a receiving node sends a stop signal to an upstream node when the buffer content reaches a high threshold due to a cell arrival and sends a start signal when the buffer content has subsequently dropped below a low threshold due to a cell departure (Iliadis, Col.2, lines 33-36). It will be noted that Iliadis specifically teaches sending a stop signal to an upstream node when the buffer content reaches a high threshold value. That is, the upstream node decreases the number of packets which are transmitted to the buffer when a threshold value of the buffer content is reached. Therefore, the teachings of Iliadis certainly contradict the presently claimed method of “increasing the number of packets that a source, which provides packets to the router, is allowed to transmit into the communications network” (Claim 1). Clearly, Lin in view of Iliadis fails to teach or even suggest all the claim features.

In addition, there has been no showing of the required motivation for the suggested combination, nor has there been any showing of a reasonable expectation of success. The Office Action suggests that it would have been obvious to one of ordinary skill in the art to combine the teachings of these references. However, this conclusion finds no support in the references. Indeed the Office Action cites no motivation for such a combination, other than a general desire to avoid traffic starvation in the connection (Office Action, Page 2). This rote invocation of a general desire to make existing technologies better is an insufficient basis for reaching a conclusion of obviousness. Instead, what is needed is an actual showing of motivation to make the desired combination.

In this case, each of the references themselves provides what appears to be a complete solution for traffic management. Neither of the references suggests that additional steps are needed to improve the techniques disclosed herein. For example, Lin discloses that if “the expandable buffer has used all of the excess or available memory in  $CS_M$ , a **message or indication is sent to the upstream device, for example, caching server level M-1 (hereafter  $CS_{M-1}$ ) to cease further data segment streaming**, as depicted in step 216. Similarly, the upstream device could be the network server. Thereafter,  $CS_M$  **periodically checks** for network

congestion between  $CS_M$  and  $CS_{M+1}$  in step 218. If network congestion exists in the connection between the  $CS_M$  and  $CS_{M+1}$ ,  $CS_M$  continues in a non-data segment receiving mode and returns to step 216. If network congestion does not exist, **a message or indication is sent to  $CS_{M-1}$  to begin data segment streaming again**, as indicated in step 220". Therefore, it will be noted that Lin is not concerned with the effective serving rate of the buffer being increased for a time period comprising a round-trip time interval. Instead, Lin periodically checks for network congestion so as to determine the duration for increasing the buffer size. Clearly, Lin presents a complete solution and there is no motivation for Lin to modify the invention such that the effective serving rate of the buffer is increased for a time period comprising a round-trip time interval. For his part, Iliadis achieves network traffic control by limiting the transmission of data from the upstream node based on the thresholds of the receiving buffer. Similarly, Iliadis presents a complete solution. Nothing in these disclosures would suggest that any combination of these processes is desirable. Consequently, there exists no motivation for the recited combination.

Rather than making a proper prima facie case of obviousness, it appears that the teachings of the present application have been used as a blueprint to gather together and assemble various components of the prior art in the manner contemplated by the present applicants. This is a classic example of the use of hindsight reconstruction, and cannot properly be used as grounds for rejecting the present claims. Indeed, the U.S. Court of Appeals for the Federal Circuit has rejected such applications of hindsight by specifically indicating that when an obviousness rejection is made based upon a combination of references, an examiner "must show reasons that the skilled artisan, confronted with the same problems as the inventor *and with no knowledge of the claimed invention*, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998) (emphasis added). Merely indicating, as in the present Office Action, that the claimed invention would be obvious to one of ordinary skill in the art based on the combination of the references is inadequate.

As demonstrated above, the present Office Action deconstructs the subject matter of the claims into its constituent components, states where each such component may be found in one of the cited references, and then concludes that it would have been obvious to combine the references to arrive at the claimed invention. This bare bones analysis is not sufficient to support the present rejections. The burden is on the Examiner to show *why* one would be so motivated as

to come up with the combination. *Rouffet* at 1357-1358 ("If such a rote invocation could suffice to supply a motivation to combine, the more sophisticated scientific fields would rarely, if ever, experience a patentable technical advance. Instead, in complex scientific fields the [Patent Office] could routinely identify the prior art elements in an application, invoke the lofty level of skill, and rest its case for rejection. To counter this potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.") Accordingly, the present rejections should be removed.

### 3. Conclusion

Having tendered the above remarks and amended the claims as indicated herein, the Applicant respectfully submit that all rejections have been addressed and that the claims are now in a condition for allowance, which is earnestly solicited.

If there are any additional charges, please charge Deposit Account No. 02-2666. If a telephone interview would in any way expedite the prosecution of the present application, the Examiner is invited to contact Jaina Chua at (408) 947-8200.

Respectfully submitted,

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Dated: September 21, 2005

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